

FIG. 1 is a block diagram of a network switch 10. The switch 10 includes a control card 24, a switching fabric 18, and a plurality of line cards 14A1, 14A2, 14B1, 14B2, 14C. Each line card 14 includes an IP Forwarder 30, a CAM table 15, and a control interface 16. The control card 24 is connected to the control interfaces 16 of the line cards 14. The switching fabric 18 is connected to the IP Forwarders 30 of the line cards 14. The line cards 14 are connected to external networks via ports 14A1, 14A2, 14B1, 14B2, 14C.

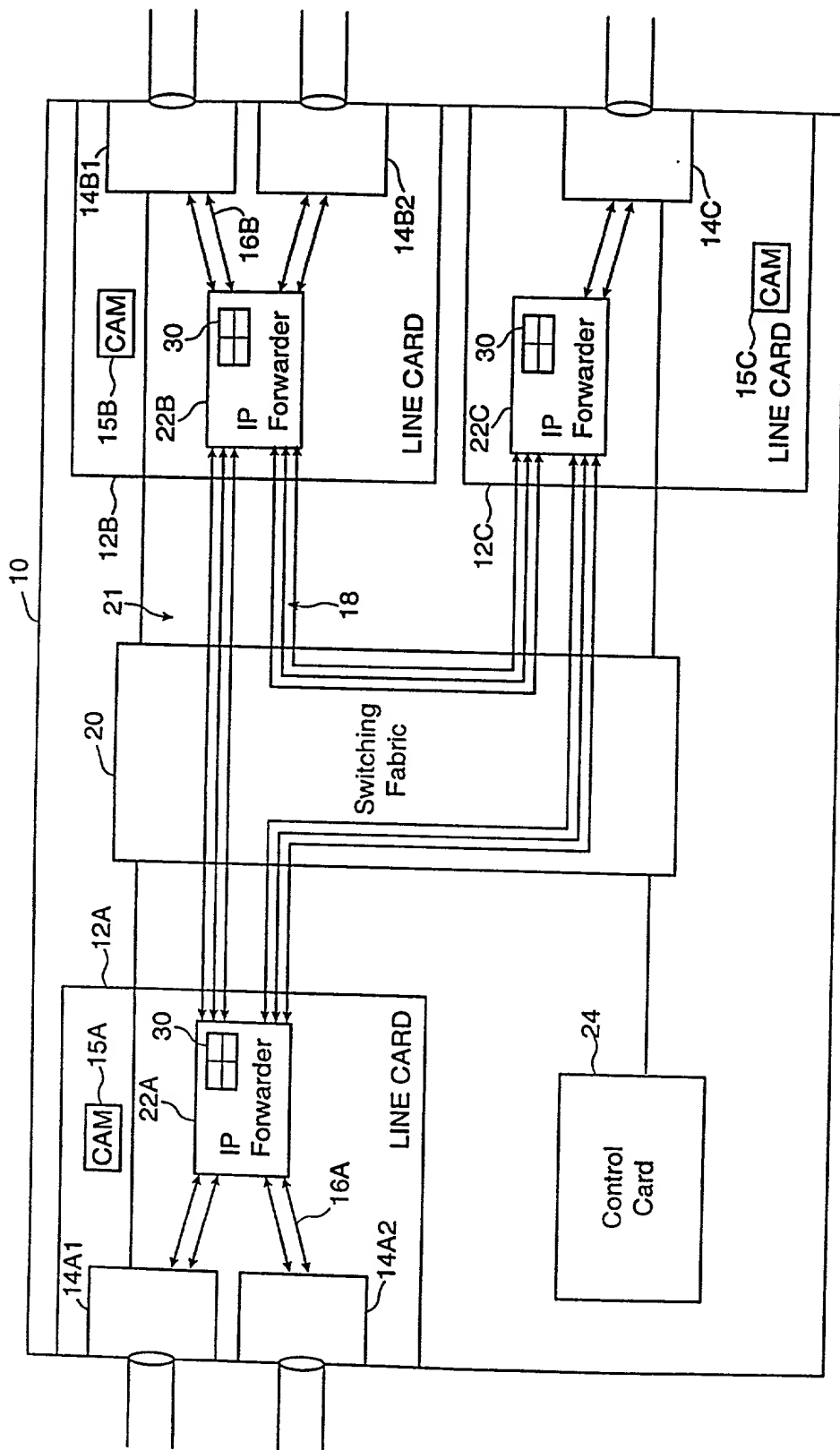
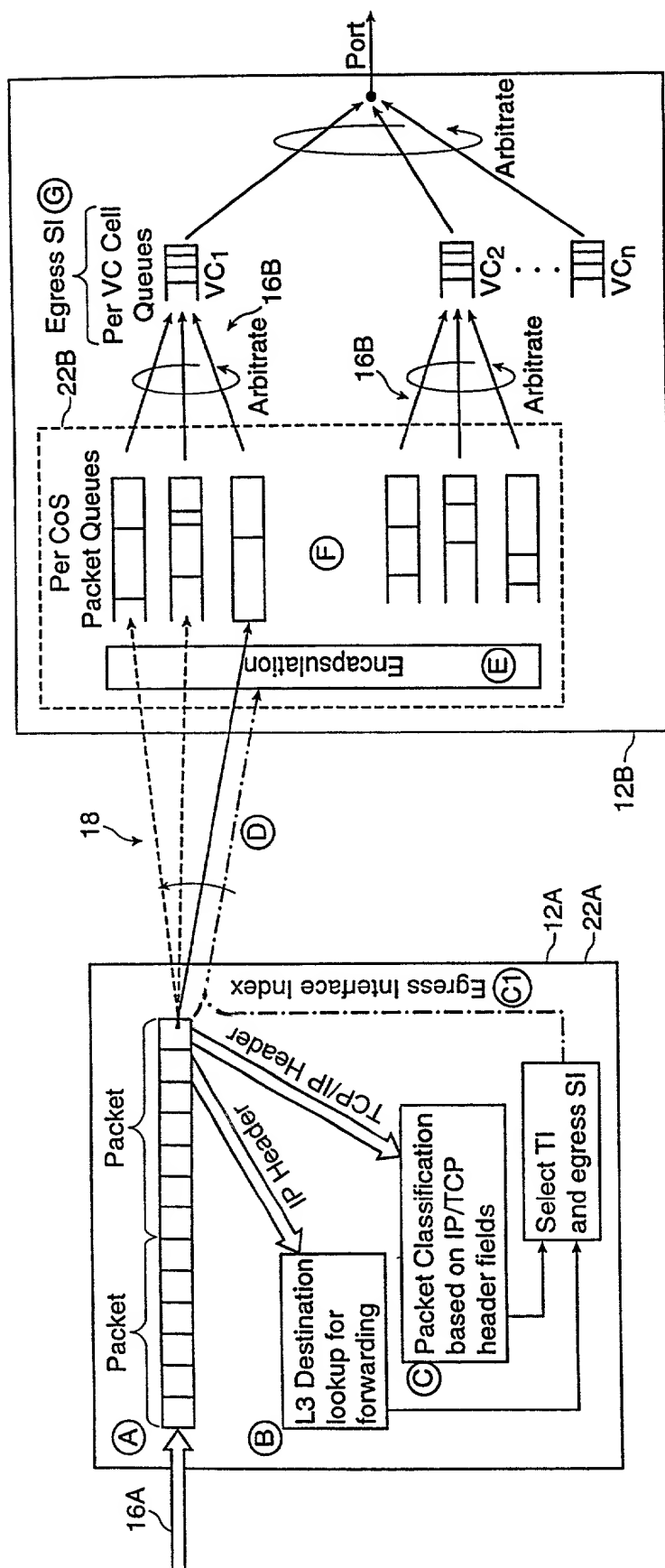


Figure 1



## Figure 2

Diagram of a packet structure 75. The packet is divided into four main sections: Addr Prefix, Next hop Router ID, Egress Interface Index List, and FEC Z. The Addr Prefix section contains the value 1.2.3.4. The Next hop Router ID section contains the value B. The Egress Interface Index List section contains a list of indices, with the last one shaded and labeled 76. The FEC Z section contains a shaded area labeled 75d. The entire packet is labeled 75.

## Figure 6

IP Address	Egress Interface Index
1.2.3.4	

FEC Z

76

30

### Figure 3

Fig. 4

Parameter	Description	Default	NMTI	SNMP	NCI	CLI
ID number	A identification number assigned for this SI; unique within a subslot. This value is internally assigned and cannot be changed. This is 5 digit number field.	None	R	-	-	-
Endpoint	The ATM endpoint (shelf-slot-subslot-port; VPI/VCI) used by the SI.	None	R/W	-	-	-
Name	Name of the SI. This is 16 character text string field	Empty	R/W	-	-	-
Application	Application(s) provided by this SI. This is a boolean vector (i.e. bit map) indicating whether each of forwarding, routing and LDP is enabled.	Forward	R/W	-	-	-
Address type	Type of the IP address field. Valid type supported are unnumbered and IPv4.	Un-numbered	R/W	-	-	-
IP address	The IP address of the service interface. Represented to the user in standard "dotted decimal" format. "Illegal" IP addresses (e.g. 0.0.0.0, 255.255.255.255) are blocked.	Un-assigned	R/W	-	-	-
IP address prefix length	Number of bits in the IP address which constitute the (sub)network ID. A number in the range of 0..32.	None	R/W	-	-	-
Neighbour address type	Type of the neighbour IP address field. Valid type supported are unnumbered and IPv4.	Un-numbered	R/W	-	-	-
Neighbour IP address	The IP address used at the termination of the SI at the neighbouring router. Represented to the user in standard "dotted decimal" format. "Illegal" IP addresses (e.g. 0.0.0.0, 255.255.255.255) are blocked.	Un-assigned	R/W	-	-	-
Encapsulation	Encapsulation used on the SI. (RFC1483 LLC/SNAP routed IP, RFC1483 NULL)	RFC1483 NULL	R/W	-	-	-
MTU	Maximum Transmission Unit.	2016 octets	R	-	-	-
Ingress traffic contracts	An ingress traffic contract structure consists of an action (disable, tag, discard), a committed information rate (in b/s) and a burst size (in bytes). Eight ingress traffic contract structures are contained in each SI; each applies to a CoS.	disable CIR 0 BS 0	R/W	-	-	-
Status	Status of the service interface. (Up, Down).	Down	R	-	-	-

Service Interface Parameters

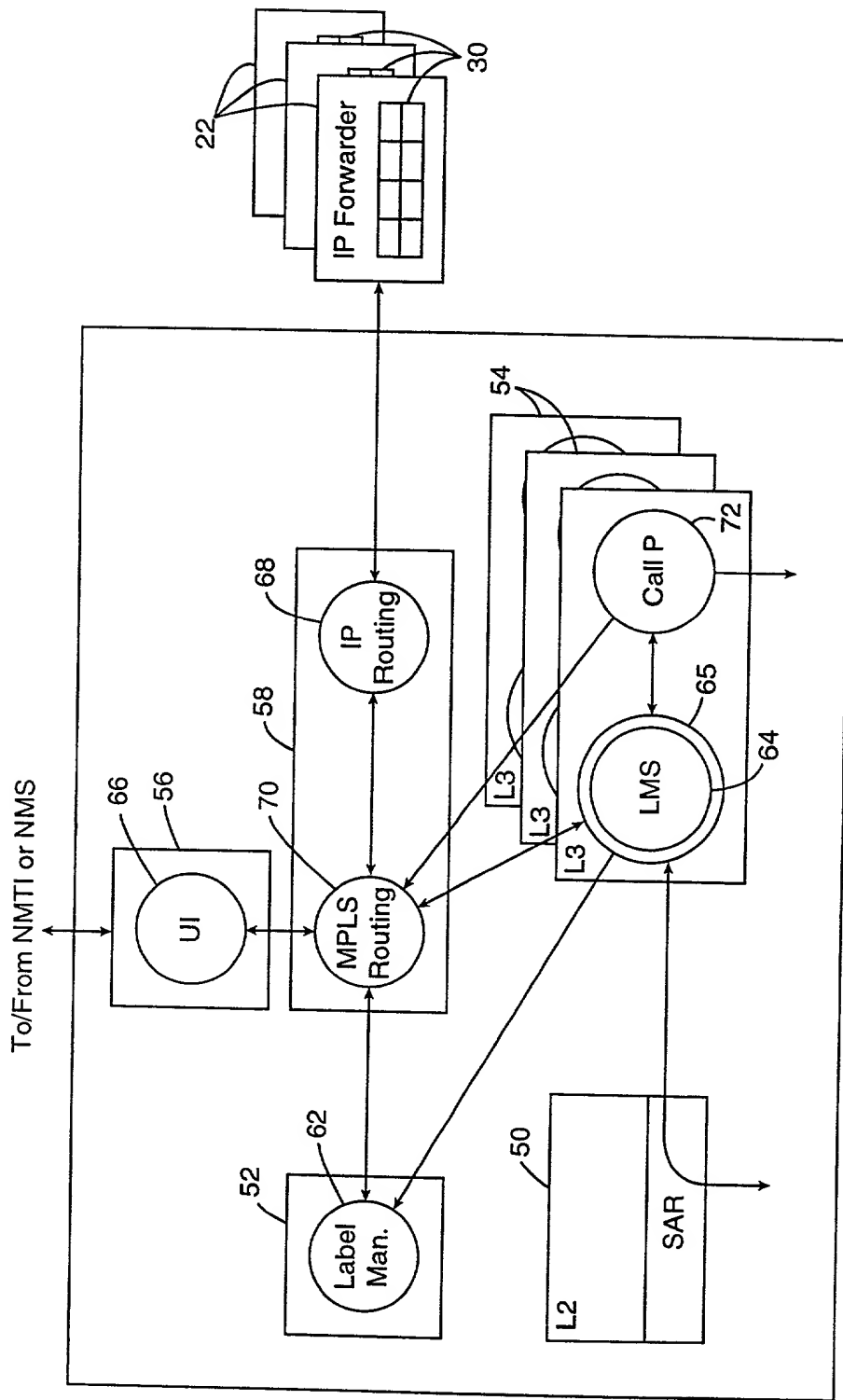


Figure 5

FIG. 7 is a block diagram of a network system 80. The system includes a first node 10A, a second node 10B, and a third node 10C. Node 10A is connected to node 10B via a link 82. Node 10A is also connected to node 10C via a link 84AB. Node 10B is connected to node 10C via a link 84BC. Node 10C is connected to a network cloud via a link 82. The network cloud is connected to a fourth node 10D, which is labeled FEC Z.

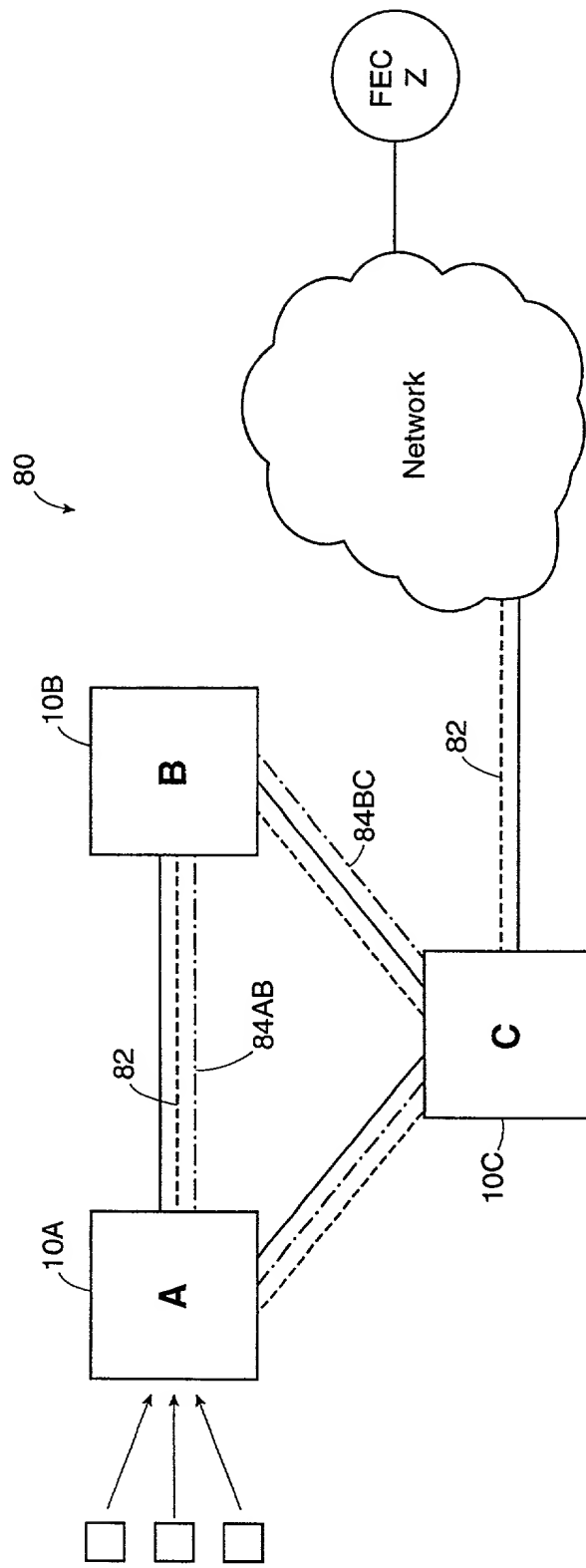
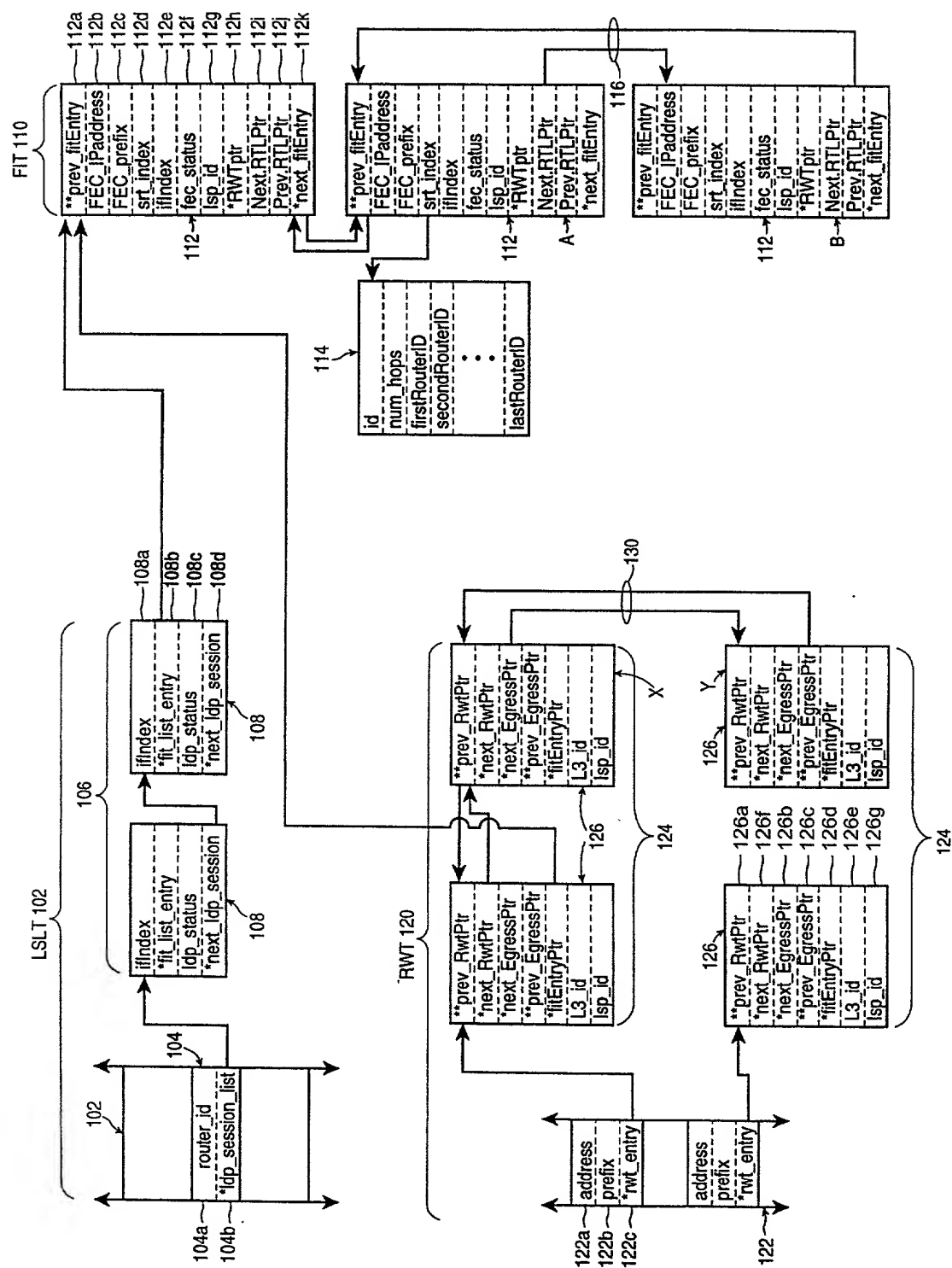
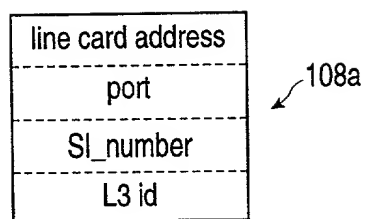
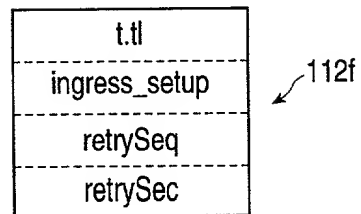


Figure 7



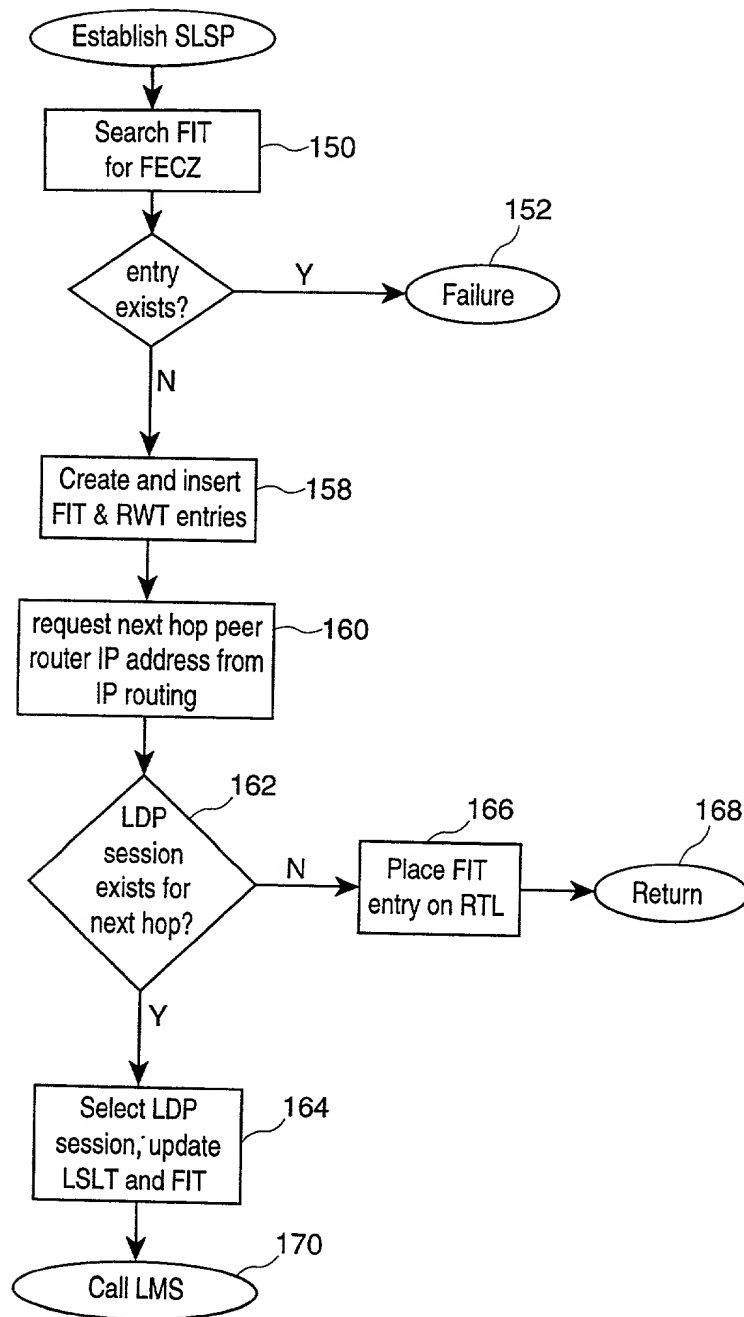


**Figure 8A**



**Figure 8B**





**Figure 9**

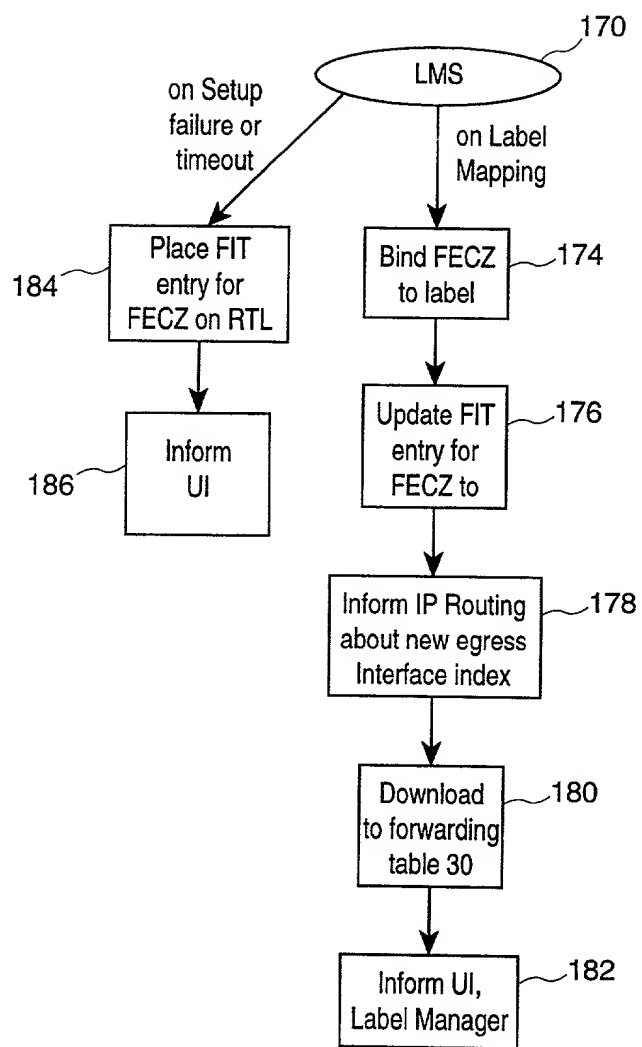
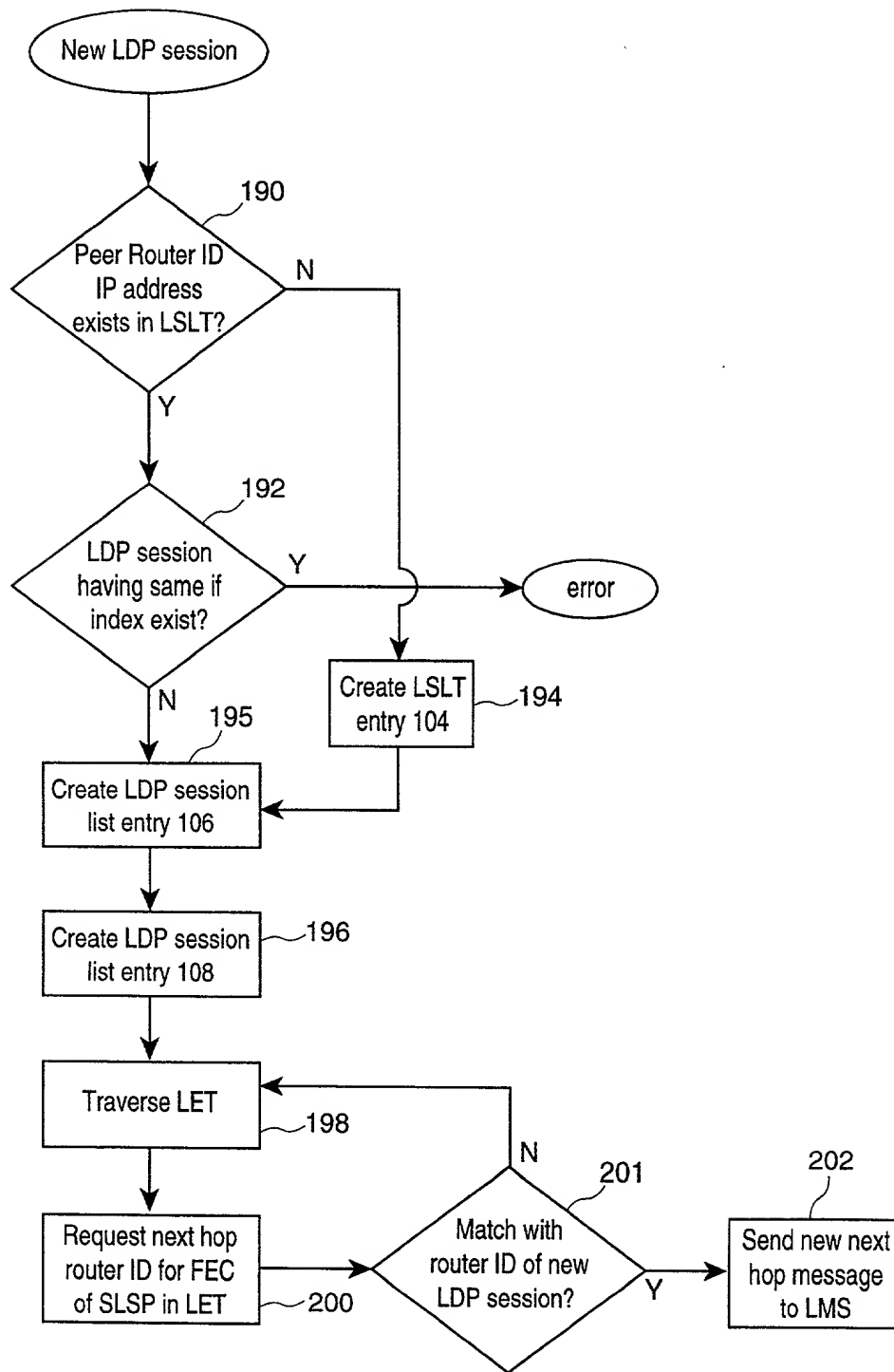


Figure 10



**Figure 11**